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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/661,240 | 09/11/2003 | Tatsufumi Kusuda | P/1250-260 | 6824 |

2352 7590 04/19/2004

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EXAMINER

FUQUA, SHAWNTINA T

ART UNIT PAPER NUMBER

3742

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,240

Applicant(s)

KUSUDA ET AL.

Examiner

Shawntina T. Fuqua

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,8,9 and 12-16 is/are rejected.
- 7) ☒ Claim(s) 2,4,6,7,10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/15/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 5, 8-9, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Moto et al (US6167194).

Moto et al discloses a susceptor for holding a substrate comprising a flat receiving surface (13), a tapered peripheral edge (13a) wherein the lower edge of the tapered surface is attached to the peripheral edge of the receiving surface (Figures 3, 5, 6) and the tapered surface is formed upwardly with a gradient between 5-30 degrees (column 6, lines 30-35), a plurality of lamps (101), a chamber (100), and a second tapered surface (14) annularly enclosing the peripheral edge of the first tapered surface wherein the second gradient is larger than the first gradient (Figures 3, 5, 6).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moto et al as applied to claim 12 above, and further in view of Arai et al (US4571486).

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Moto et al discloses all of the recited subject matter except flash lamps and an assistive heater in the holder for preheating the substrate. Arai et al discloses flash lamps (3) and an assistive heater in the holder for preheating the substrate (column 3, lines 33-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced the halogen lamps of Moto et al with the flash lamps of Arai et al and to have included the assistive heater of Arai et al in the holder of Moto et al because, flash lamps and an assistive heater allow the substrate to be heated more uniformly.

5. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moto et al as applied to claims 1, 3, 5, 8-9, and 12 above, and further in view of Lee et al (US6519417).

Moto et al discloses all of the recited subject matter except a tapered surface which allows the substrate to slide up along the tapered surface as the substrate expands without restricting expansion of the substrate. Lee et al discloses a tapered surface which allows the substrate to slide up along the tapered surface as the substrate expands without restricting expansion of the substrate (30; column 4, lines 7-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the tapered surface of Lee et al in the apparatus of Moto et al because, the tapered as disclosed in Lee et al acts as a wafer guide.

Allowable Subject Matter

6. Claims 3, 4, 6-7, and 10-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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7. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record neither discloses nor suggests an inclined surface with an average surface roughness not more than 1.6 micrometers.

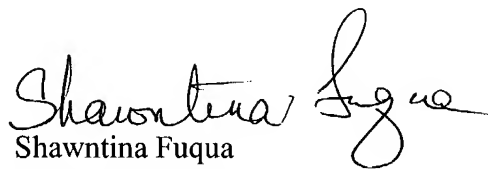
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawntina T. Fuqua whose telephone number is (703) 305-2581. The examiner can normally be reached on Monday-Friday 8-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg can be reached on (703) 308-1327. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

stf
April 18, 2004


Shawntina Fuqua
Patent Examiner
Art Unit 3742